REMARKS/ARGUMENTS

Claims 1, 3, 5, 6, 11-21, 25-28, 30-33, and 38 are pending. Claim 38 has been appended.

Claims 1, 3-9, 11-21, 25, 28, 31, 32, and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over in view of Weiss, U.S. Patent No. 6,492,975 B1, in view of Schneider Jr., U.S. Patent No. 3,733,447.

The claimed invention is directed to an optical mouse system having a mechanical motion sensor comprising a ball and contact arrangement. A detection circuit produces a trigger signal when the detection circuit receives a motion signal from the motion detector. The trigger signal serves to transition the optical mouse from a sleep state to a wake state, where the current consumption during the sleep state is lower than the current consumption during the wake state. Claim 1 has been amended accordingly by combining the optical mouse subject matter originally recited in claims 7 and 8 (which have now been canceled):

> An optical mouse system comprising:
> a printed circuit board;
> a motion sensor operatively coupled to said printed circuit board, said motion sensor having a motion signal output; and
> a detection circuit connected to said motion signal output and having a trigger signal output,
> said motion sensor comprising:
> a ball contact; and
> at least one stationary contact formed directly on a surface of said printed circuit board,
> wherein said ball contact is in electrical contact with said at least one stationary contact,
> said optical mouse having a sleep state and a wake state,
> wherein said optical mouse is inactive during said sleep state and electric current consumption by said optical mouse during said sleep state is less than electric current consumption by said optical mouse during said wake state,
> wherein said optical mouse transitions from said sleep state to said wake state when a trigger signal is produced at said trigger signal output.

Dependent claim 38 has been appended to claim that electric current consumption during the sleep state is about 5-8 microamps. See for example the specification as originally filed at paragraph [0062]. No new matter has been added.

Weiss was cited for showing a motion sensor incorporated in a computer mouse device. Weiss, however, explains that his motion sensor serves to "disable" the mouse when the user tilts the mouse in an orientation that exposes the user to repetitive injury of the wrist. In fact, the Weiss mouse includes a signaling device that emits an audible and/or a visual signal to alert the user when the mouse has been titled and hence disabled. See for example the discussion in Weiss at column 3, line 62 to column 4, line 25.

Weiss therefore teaches the use of a motion sensor in a computer mouse for the purpose of "disabling" the mouse and the use of a signaling device to provide an audio or visual signal to inform the user that the mouse has been disabled.

Amended Claim 1

The claimed invention operates in precisely the opposite manner. The claimed optical mouse includes a motion sensor and detection circuit that together produce a trigger signal that transitions the optical mouse from a sleep state to a wake state.

By comparison, in Weiss activation of the motion sensor due to tilting of the mouse by the user results in disabling the operation of the mouse; this cannot be fairly construed by one of ordinary skill as transitioning the mouse from a sleep state to a wake state. In fact, the Weiss mouse, though "disabled," remains active (or awake) so that the signaling device in the mouse can be operated to produce an audible or visual signal to alert the user. The Weiss mouse, therefore, cannot be said to have a sleep state.

Weiss, therefore, does not teach an optical mouse having a motion sensor and detection circuitry, where the optical mouse has a sleep state and a wake state and where a trigger signal produced from the detection circuit transitions the optical mouse from the sleep state to the wake state.

Appended Dependent Claim 38

Dependent claim 38 further recites that the optical mouse in the sleep state consumes about 5-8 microamps of electric current. Weiss clearly does not teach a mouse being in a sleep state, and certainly does not teach a state of operation wherein the current consumption is about 5-8 microamps. Indeed, Weiss does not teach such a low power state, since even when

his mouse is "disabled," the mouse continues to operated; in particular, the mouse continues to operate in order to produce an audible or visual signal to alert the user that the mouse has been tilted in a manner that is detrimental to the user's wrist.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. Reconsideration of the claims and the issuance of a formal Notice of Allowance at an early date are respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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